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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/449,660	11/30/1999	JAMES WICHELMAN	10001186	6543

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EXAMINER

RYMAN, DANIEL J

ART UNIT

PAPER NUMBER

2665

DATE MAILED: 02/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/449,660

Applicant(s)

WICHELMAN ET AL.

Examiner

Daniel J. Ryman

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 November 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Response to Arguments

1. In view of the Appeal Brief filed on 11/22/2004, PROSECUTION IS HEREBY REOPENED. A Final Rejection set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) request reinstatement of the appeal.

If reinstatement of the appeal is requested, such request must be accompanied by a supplemental appeal brief, but no new amendments, affidavits (37 CFR 1.130, 1.131 or 1.132) or other evidence are permitted. See 37 CFR 1.193(b)(2).

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 4 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 4 does not particularly point out what the "percent availability" graph represents. It is not clear is the graph is a percent availability of power, channels, bandwidth, etc. For the purposes of prior art rejection, Examiner will interpret claim 4 to read "the group level test result components further comprise an average percent availability graph of channels".

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1, 2, 4, 5, 7, 9-11, 13, 14, and 17-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ritchie, Jr. et al. (USPN 5,790,523) in view of Dev et al. (USPN 5,295,244).

6. Regarding claims 1 and 13, Ritchie discloses an interface system for monitoring a number of channels in a communications system having at least one group (serving area) of a number of nodes (col. 6, lines 55-65 and col. 10, lines 9-13), each node having a number of channels (col. 12, line 44-col. 13, line 2), the interface system comprising: a processor (ref. 912) electrically coupled to a local interface (col. 25, line 63-col. 26, line 13 and col. 30, line 19-col. 31, line 18); a memory (ref. 914) electrically coupled to the local interface (col. 30, line 19-col. 31, line 18); and test result interface logic stored on the memory and executable by the processor, the test result interface logic including: group level logic to generate a number of group level test result components (database) that include a number of group parameters associated with the at least one group (col. 28, lines 10-60; col. 33, lines 46-67; and col. 35, lines 31-50); node level logic to generate a number of node level test result components (results of "return to service test") that include a number of node parameters associated with one of the nodes (col. 28, lines 10-60; col. 33, lines 46-67; and col. 35, lines 31-50); and channel level logic to generate a number of channel level test result components (results of "ingress test") that include a number

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of channel parameters associated with a channel on one of the nodes (col. 28, lines 10-60; col. 33, lines 46-67; and col. 35, lines 31-50).

Ritchie does not expressly disclose a display device electrically coupled to the local interface that displays a number of group level, node level, and channel level test result components generated by display logic or logic to enable a user to select among the group level test result components, node level test result components, and channel level test result components for display on the display device. Dev teaches, in a testing and monitoring system, displaying gathered network information using a user selectable view of different aspects of the network (col. 2, lines 20-27; col. 2, lines 46-59; and col. 12, line 60-col. 13, line 46) in order to “provide a network management system which can systematize the knowledge of the networking expert such that common problems can be detected, isolated and repaired, either automatically or with the involvement of less skilled personnel” (col. 1, lines 64-68). Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to electrically couple a display device to the local interface that displays a number of group level, node level, and channel level test result components generated by display logic and to have logic to enable a user to select among the group level test result components, node level test result components, and channel level test result components for display on the display device in order to provide a network management system which can systematize the knowledge of the networking expert such that common problems can be detected, isolated and repaired, either automatically or with the involvement of less skilled personnel.

7. Regarding claim 2, Ritchie in view of Dev discloses that the group level test result components further comprise a node information table listing a number of the nodes associated

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with the at least one group (Dev: Figs. 7A-7C and col. 12, line 60-col. 13, line 46) where a graph is broadly defined to be a "table."

8. Regarding claim 4, Ritchie in view of Dev suggests that the group level test result components further comprise an average percent availability of channels graph indicating a low percent availability, a high percent availability, and an average percent availability for a number of the nodes associated with the at least one group (Ritchie: col. 12, line 44-col. 13, line 2; col. 33, lines 63-65; and col. 34, lines 10-12 and Dev: col. 2, lines 20-27; col. 2, lines 46-59; and col. 12, line 60-col. 13, line 46) where Ritchie discloses determining which channels are available and Dev discloses graphing different aspects of the network.

9. Regarding claims 5 and 14, Ritchie in view of Dev suggests that the node level test result components further comprise a channel plan graph that indicates a desired frequency spectrum of a respective one of the nodes, the desired frequency spectrum including at least one frequency band associated with at least one of the channels that are associated with the respective node (Ritchie: col. 33, lines 63-65 and col. 34, lines 10-12 and Dev: col. 2, lines 20-27; col. 2, lines 46-59; and col. 12, line 60-col. 13, line 46) where Ritchie discloses determining a desired frequency spectrum and Dev discloses graphing different aspects of the network.

10. Regarding claim 7, Ritchie in view of Dev suggest that the node level test result components further comprise a node spectrum scan indicating an actual frequency spectrum of one of the nodes with respect to time (Ritchie: col. 12, line 44-col. 13, line 2; col. 33, lines 63-65; and col. 34, lines 10-12 and Dev: col. 2, lines 20-27; col. 2, lines 46-59; and col. 12, line 60-col. 13, line 46) where Ritchie discloses scanning an actual frequency spectrum and Dev discloses graphing different aspects of the network.

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11. Regarding claims 9 and 17, Ritchie in view of Dev suggests that the channel level test result components further comprise a channel percent available graph indicating a percent availability of the channels associated with one of the nodes with respect to time (Ritchie: col. 12, line 44-col. 13, line 2; col. 33, lines 63-65; and col. 34, lines 10-12 and Dev: col. 2, lines 20-27; col. 2, lines 46-59; and col. 12, line 60-col. 13, line 46) where Ritchie discloses determining which channels are available and Dev discloses graphing different aspects of the network.

12. Regarding claims 10 and 18, Ritchie in view of Dev suggests that the channel level test result components further comprise a channel average noise power graph indicating a magnitude of a channel noise power of the channels associated with one of the nodes with respect to time (Ritchie: col. 4, lines 29-32; col. 5, lines 16-29; col. 5, lines 40-42; and col. 12, lines 56-59 and Dev: col. 2, lines 20-27; col. 2, lines 46-59; and col. 12, line 60-col. 13, line 46) where Ritchie discloses measuring the channel noise and Dev discloses displaying measurements.

13. Regarding claims 11 and 19, Ritchie in view of Dev suggests that the channel level test result components further comprise a channel power graph indicating a magnitude of a channel noise power of one of the channels associated with one of the nodes with respect to time (Ritchie: col. 4, lines 29-32; col. 5, lines 16-29; col. 5, lines 40-42; and col. 12, lines 56-59 and Dev: col. 2, lines 20-27; col. 2, lines 46-59; and col. 12, line 60-col. 13, line 46) where Ritchie discloses measuring the channel noise and Dev discloses displaying measurements.

14. Claims 3, 6, and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ritchie, Jr. et al. (USPN 5,790,523) in view of Dev et al. (USPN 5,295,244) as applied to claims 1 and 13 above, and further in view of Franchville et al. (USPN 6,041,076).

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15. Regarding claim 3, Ritchie in view of Dev does not expressly disclose that the group level test result components further comprise a group total node power graph indicating a power range for a number of the nodes associated with the at least one group. However, Ritchie in view of Dev discloses measuring different parameters on a system and compiling these measurements into a database (Ritchie: col. 28, lines 10-60; col. 33, lines 46-67; and col. 35, lines 31-50). Ritchie in view of Dev also discloses displaying measurements taken of a system in a user selectable view of different aspects of the network (Dev: col. 2, lines 20-27; col. 2, lines 46-59; and col. 12, line 60-col. 13, line 46). Franchville discloses that it is well known in CATV systems to measure the power of a signal (col. 2, lines 29-56). Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to have the group level test result components further comprise a group total node power graph indicating a power range for a number of the nodes associated with the at least one group in order to allow a user to view the power range for a number of nodes in a group.

16. Regarding claims 6 and 15, Ritchie in view of Dev does not expressly disclose that the node level test result components further comprise a total node power graph indicating an amount of power associated with one of the nodes with respect to time. However, Ritchie in view of Dev discloses measuring different parameters on a system and compiling these measurements into a database (Ritchie: col. 28, lines 10-60; col. 33, lines 46-67; and col. 35, lines 31-50). Ritchie in view of Dev also discloses displaying measurements taken of a system in a user selectable view of different aspects of the network (Dev: col. 2, lines 20-27; col. 2, lines 46-59; and col. 12, line 60-col. 13, line 46). Franchville discloses that it is well known in CATV systems to measure the power of a signal (col. 2, lines 29-56). Thus, it would have been obvious

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to one of ordinary skill in the art at the time of the invention to have the node level test result components further comprise a total node power graph indicating an amount of power associated with one of the nodes with respect to time in order to allow a user to view the power variations of a node with time.

17. Claims 8 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ritchie, Jr. et al. (USPN 5,790,523) in view of Dev et al. (USPN 5,295,244) as applied to claims 1 and 13 above, and further in view of Zimmerman (USPN 5,577,067).

18. Regarding claims 8 and 16, Ritchie in view of Dev does not expressly disclose that the channel level test result components further comprise a channel carrier-to-noise graph indicating a magnitude of a channel carrier-to-noise ratio of the channels associated with one of the nodes with respect to time. However, Ritchie in view of Dev discloses measuring channel conditions, including noise (Ritchie: col. 4, lines 29-32; col. 5, lines 16-29; col. 5, lines 40-42; and col. 12, lines 56-59). Ritchie in view of Dev also discloses displaying measurements taken of a system in a user selectable view of different aspects of the network (Dev: col. 2, lines 20-27; col. 2, lines 46-59; and col. 12, line 60-col. 13, line 46). Zimmerman teaches, in a CATV system, that it is well known to measure the carrier-to-noise ratio (col. 1, line 50-col. 2, line 10) in order to “maintain the system in optimum condition” (col. 2, lines 11-15). Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to have the channel level test result components further comprise a channel carrier-to-noise graph indicating a magnitude of a channel carrier-to-noise ratio of the channels associated with one of the nodes with respect to time in order to allow a user to maintain the system in optimum condition.

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19. Claims 12 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ritchie, Jr. et al. (USPN 5,790,523) in view of Dev et al. (USPN 5,295,244) as applied to claims 1 and 13 above, and further in view of Capel et al. (USPN 4,340,961).

20. Regarding claims 12 and 20, Ritchie in view of Dev does not expressly disclose that the channel level test result components further comprise a channel burst counter graph indicating a number of channel bursts occurring in the channels associated with one of the nodes with respect to a burst duration length. However, Ritchie in view of Dev discloses measuring channel conditions (Ritchie: col. 4, lines 29-32; col. 5, lines 16-29; col. 5, lines 40-42; and col. 12, lines 56-59). Ritchie in view of Dev also discloses displaying measurements taken of a system in a user selectable view of different aspects of the network (Dev: col. 2, lines 20-27; col. 2, lines 46-59; and col. 12, line 60-col. 13, line 46). Capel teaches, in a CATV system (col. 3, lines 2-18), that it is known to limit the individual burst length of individual units and detect malfunctioning units by detection violations of the burst length (col. 6, lines 29-38). It would have been obvious to one of ordinary skill in the art at the time of the invention to have the channel level test result components further comprise a channel burst counter graph indicating a number of channel bursts occurring in the channels associated with one of the nodes with respect to a burst duration length in order to allow a user to detect malfunctioning units.

Conclusion

21. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO**

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MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel J. Ryman whose telephone number is (571)272-3152. The examiner can normally be reached on Mon.-Fri. 7:00-4:30 with every other Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu can be reached on (571)272-3155. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Daniel J. Ryman
Examiner
Art Unit 2665

DP2



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